ASOS COMMUNICATIONS TRANSFER IMPLEMENTATION PLAN

July 23, 2002

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service/Office of Operational Systems/
Field Systems Operations Center/Observing Systems Branch

Executive Summary

A Memorandum Of Agreement (MOA) was signed on July 20, 2001 by the National Weather Service (NWS) and the Federal Aviation Administration (FAA) for the transfer of observing augmentation and backup support for the Automated Surface Observing System (ASOS) at 75 locations. This includes 9 Service Level A, 8 service Level B, and 58 Service Level C locations, 7 of which will change from Service Level C (attended) to D (unattended) when the transition is completed. This transfer will occur in a series of steps with each step containing a group of ASOS locations. The first group included 29 Service Level C ASOS locations. These sites were transitioned in Summer 2001. The second group included 17 Service Level A/B locations. These sites were transitioned between October 2001 and April 2002. To begin the transfer of the next batch of sites the FAA submitted a formal Request for Change (RC) to transition NWS communications to FAA Automated Weather Observing Systems (AWOS)/ASOS Data Acquisition System (ADAS) at 29 Service Level C/D locations in year 2002. This transition also includes the transfer of augmentation/backup observing responsibility from NWS to FAA. Additionally, the FAA submitted a formal RC to transition the NWS communications to FAA ADAS at 40 Service Level A/B locations to support the Integrated Weather Information System (ITWS) acquisition of ASOS one-minute observations in year 2002 and 2003. The augmentation/backup observing responsibilities for these 40 locations were previously transferred from NWS to FAA.

Subsequent to the signing of the MOA, the NWS submitted a formal RC to transition communications to FAA ADAS at an additional ASOS FAA Service Level C/D location in year 2002. This site is Williston (ISN), ND. When the transition is complete at this site the Service Level will change from C to D. The addition of this site to the 29 Service Level C/D and 40 Service Level A/B sites brings the total to 70 ASOS locations in the current batch scheduled to transition to FAA ADAS communications in 2002 and 2003.

The transition at these 70 locations involves changing the communications pathway from the ASOS location from the NWS Advanced Weather Interactive Processing System (AWIPS) to the FAA ADAS. This will make Automated Lightning Detection And Reporting System (ALDARS) data available in the ASOS Aviation Routine Meteorological Report (METAR) and the Aviation Selected Special Weather (SPECI) report transmitted long-line from those locations when an observer is not available to provide back up/augmentation support. When this transition occurs all data from these locations will be transmitted through the FAA ADAS and routed to the NWS through the Weather Message Switching Center Replacement (WMSCR) to the NWS Telecommunications Gateway (NWSTG).

The impact of these changes will be enhanced reporting of lightning data, and substantial cost savings to the NWS through automation of the lightning data observation at unstaffed locations and cancellation of NWS AWIPS dial-out phone lines from all these locations. When this occurs, dial-out backup phone

lines from these locations to the NWS AWIPS will end and all long-line communications will be through the FAA ADAS network. Another consequence of this change will be observations from these locations will be placed in different World Meteorological Organization (WMO) Collectives for external dissemination. This will necessitate a coordinated effort to alert users of this change and urge them to modify automated software applications to find the data in the different Collectives. A third impact requiring user notification will be the change of observer augmentation/backup service levels provided at 30 locations. This involves a switch from full-time FAA Service Level C (attended) to full-time FAA Service Level D (unattended) at 7 locations and a switch from full-time Service Level C to part-time service level C/D at 23 locations. The FAA will manage and provide user notification of the impending change of FAA Service Levels due to this transition.

This plan describes the method through which this transition will occur for this group of 70 ASOS locations. The transition for this group is authorized by the approved RC FAA 190 (RC NWS AA797) for the 40 ASOS Service Level A/B locations connected to the FAA ITWS , RC FAA 191 (RC NWS AA798) for the 29 ASOS Service Level C/D locations, and RC NWS AA870 (CRH 762S) for an additional ASOS Service Level C/D location. The transition for the 40 Service Level A/B locations will occur between July 2002 and December 2003. The transition for the 30 Service Level C/D locations will occur between July and September 2002. Schedules, responsibilities, strategies, and scenarios are included in this plan. This plan provides a transition period at each location when observations are transmitted through both the NWS/AWIPS and FAA/ADAS communications networks to ensure the final switch over goes smoothly.

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List of Organizational Codes

Code	NWS Organization
CIO11	Data Dissemination Branch
CIO12	ASOS Operations and Monitoring Center
CIO14	Telecommunications Infrastructure Branch
OPS11	Engineering & Acquisition Branch
OPS12	Maintenance Branch
OPS13	Configuration Branch
OPS14	Logistics Branch
OPS22	Observing Systems Branch
OPS23	Software Branch
OPS24	Test & Evaluation Branch
OPS31	Operations Support & Monitoring Branch
OS12	Requirements Change Management Branch
OS7	Observing Services Division
OST2	Meteorological Development Laboratory (MDL)
TOC	Telecommunication Gateway Operations Branch

Code	FAA Organization
AUA-400	IPT* Lead for Weather/Flight Service Systems
AUA-430	Weather Sensors and Aviation Weather Research Product Team
ATP-300	Flight Service Operations Division
ATP-310	Meteorological Support
AOS-700	Network Engineering Management Division
AOP-400	Telco Network Planning & Engineering Division
ARU-1	Air Traffic Systems Development Directorate
ARS- 100	Aerospace Weather Policy Division
ARS- 200	Aerospace Weather Standards Division
ARU- 400	Aviation Weather Requirements Division

*IPT = Integrated Product Team

ASOS COMMUNICATIONS TRANSFER IMPLEMENTATION PLAN

1.0 GENERAL:

The responsibility for providing observer augmentation and backup support for the Automated Surface Observing System (ASOS) was transferred from the National Weather Service (NWS) to the Federal Aviation Administration (FAA) for 17 Service Level A and B ASOS locations and 58 Service Level C ASOS locations with the signing of the Memorandum Of Agreement (MOA) by both the NWS and FAA. This MOA affects 75 ASOS locations. The FAA plans to disseminate all ASOS reports and messages from the 58 Service Level C locations through their Automated Weather Observing System (AWOS)/ASOS Data Acquisition System (ADAS). The first batch included 29 Service Level C ASOS locations. These sites were transitioned in Summer 2001. This transition involved the transfer of both augmentation/backup responsibilities and communications transmission from NWS Advanced Weather Interactive Processing System (AWIPS) to FAA ADAS. The second batch included 17 Service Level A/B locations. These sites were transitioned between October 2001 and April 2002. Unlike the first batch, this transition will only involve the transfer of augmentation/ backup responsibility. The communication transmission remained on the NWS AWIPS.

The third batch to transfer involves the 30 FAA Service Level C/D ASOS locations where at all locations both the augmentation/ backup responsibilities and the communications transmission capability will transfer to the FAA. These 30 FAA Service Level C/D locations will transition between June 2002 and September 2002. The FAA has also requested a communications transfer at 40 other Service Level A/B ASOS locations to support their Integrated Terminal Weather System (ITWS) acquisition of real-time one minute observations. The FAA is already providing augmentation/ backup service at these 40 sites. These 40 Service Level A/B locations will transfer in 2002 and 2003. There are 70 locations in the current batch scheduled to transition to FAA ADAS communications.

The NWS realizes cost savings by canceling the dial-out phone lines from all 116 (17 + 29 in 2001, 29 + 1 + 40 in 2002-2003) locations to the AWIPS when dissemination of ASOS reports and messages from these locations flows through the FAA ADAS. These reports and messages include the ASOS Aviation Routine Meteorological Report (METAR) and Aviation Selected Special Weather Report (SPECI), the ASOS Standard Hydro meteorological Exchange Format (SHEF) precipitation criteria and hourly accumulation messages, and the Daily Summary Message (DSM) and the Monthly Summary Message (MSM). Re-Routing of these reports and messages requires these data be placed in different World Meteorological Organization (WMO) Collectives for dissemination through NWS channels. To prevent any disruption of data, the user community will be informed of the new Collective headers containing these data. This transition process requires coordinated adjustments between the NWS and FAA. This implementation plan describes these coordination activities.

1.1 Purpose and Scope:

This ASOS Communications Transfer Implementation Plan (ACTIP) identifies schedules and responsibilities for the next two batches that are 30 Service Level C/D locations and 40 Service Level A/B locations. The plan provides guidance and direction to national and regional headquarters personnel in tracking the completion of the various tasks involved in the transition of the augmentation/backup, and external ASOS communications responsibility from NWS to FAA. These tasks include interagency coordination, user notification, installation, checkout, and operational implementation. This transition will occur over a specified time period for each discrete group of ASOS locations. These 70 locations are identified in Appendix I. The ASOS Communications Transition Schedule for them is in Appendix II, and the new WMO Collective Headers for them are in Appendix III.

1.2 Schedules and Responsibilities:

The schedule for accomplishing this transition for these 70 locations is depicted in Appendix II. NWS OPS22 has overall responsibility for preparing, monitoring, and ensuring successful execution of this plan. FAA/AUA-430 is primarily responsible for the 40 Service Level A/B ASOS sites transferring to FAA ADAS in support of ITWS, while FAA/ATP-310 is primarily responsible for the transfer of augmentation/backup responsibility to FAA at the 30 Service Level C/D locations. The schedule depicted in Appendix II is subject to change as conditions warrant. Coordinated updates to this schedule will be issued by OPS22 and AUA-430/ATP-310 when necessary.

2.0 OVERALL ACTIVITIES:

The overall scope of activities includes:

1. Identify the ASOS locations in each group and the target implementation dates.
2. Submit three ASOS Request For Changes (RC)s.
3. Prepare and execute an implementation plan for transition of ASOS long-line communications channels from NWS to FAA.

2.1 The ASOS Request For Change (RC):

The three ASOS RCs for the transition of long-line communications routing from NWS/AWIPS circuits to FAA/ADAS circuits are the formal instrument for authorizing and initiating this transition. These RCs are submitted by FAA AUA-430 and the NWS concurrently to the ASOS Configuration Control Board (ACCB) for approval, the AWIPS Configuration Control Board (AWIPSCCB) for coordination and approval of necessary adjustments within AWIPS, and the NWS Data Review Group (DRG) to ensure proper routing and message handling procedures are in place. Request For Change FAA number 190 (RC NWS number AA797) identifies the 40 Service Level A/B locations undergoing this transition. The next 30 Service Level C/D sites undergoing this transition are identified by RC FAA number 191 (RC NWS number AA798) for 29 locations, and RC NWS number AA870 (CRH-762S) for an additional location.

All three RCs identify the broad activities required for this transition, and the associated Office of Primary Responsibility. They also reference this plan where other critical actions are addressed (see Appendix I for a copy of these RCs).

2.2 The ASOS Communications Transfer Implementation Plan (ACTIP):

This ACTIP is the overarching master planning document for the communications transfer. It identifies schedules and responsibilities for those activities related to interagency coordination, definition of bulletin headers, user notification, and installation schedules [i.e., installation of FAA communications lines to the ASOS by FAA Telco network Planning & Engineering Division (AOP-400); interface of these communications lines with the ADAS at the 22 Air Route Traffic Control Center (ARTCC) by FAA AUA-430; and, connection of these communications lines to the 70 ASOS Acquisition and Control Unit (ACU) by the NWS], and checkout/activation procedures (by NWS/FAA). It establishes a schedule and responsibility for accomplishing these activities. Some activities apply to the entire group and need to occur only once, while other activities are site specific and need to occur each time an ASOS location's communications pathway is transferred. This plan will serve as the initial guidance and direction, and may be modified during the course of the implementation as new conditions warrant. The ACTIP is jointly developed and managed by NWS/OPS22, FAA/AUA-430, and FAA/ATP-310.

2.3 Batch Transfer Strategy:

The transfer of communications for these 70 ASOS locations will occur in monthly batches. The first batch is scheduled for July, 2002. The sequence of events for the transition of each batch is described below. The Office of Primary Responsibility (OPR) and due date for each event is indicated in **bold face.**

1. Add ASOS data (METAR/SPECI) and messages (SHEF, DSM, MSM) from 70 ASOS locations to other ASOS data and messages in SAUS70 Collective.
   OPR: NWS CIO11. Due Date 6/23/02 COMPLETED

2. Install filters at the FAA Weather Message Switching Center Replacement (WMSCR) and the NWS Telecommunications Gateway (TG) to prevent transmission of ASOS METAR/SPECI across the WMSCR/TG interface for this group of 70 locations. This prevents receipt of duplicate observations from the other agency. Each agency gets the METAR/SPECI reports only through their own channels. **OPR: NWS CIO11; FAA AUA-430**. **Due Date 6/23/02 COMPLETED**

3. Ensure training completed prior to ADAS/ALDARS activation. FAA ATP-310 will ensure that any necessary observer training and Impact & Implementation issues are resolved prior to ALDARS availability date at each ASOS location. **OPR: FAA ATP-310. Due Date 07/23/02 PENDING COMPLETION**

4. Ensure ADAS/ALDARS is enabled at first 30 FAA Service Level C/D locations on scheduled date (see Appendix II). FAA ATP-310 will inform NWS OPS22 of the official date(s) for ALDARS availability. OPS22 will inform CIO12 and the NWS Regional Focal Points of these dates and issue a second notice to users of the impending change. On the scheduled date for ALDARS availability either the on-site FAA part-time tower observer or CIO12 will enable report processing for the ALDARS data at the designated ASOS location(s). This establishes ALDARS availability for the site. FAA AUA-430 and NWS CIO12 will coordinate this activity. Ensure ADAS is enabled at remaining 40 FAA Service Level A/B (ITWS) ASOS locations on scheduled date (see Appendix II). **OPR: NWS CIO12; FAA AUA-430. Due Date see Appendix II. PENDING COMPLETION.**

5. Ensure Augmentation/Backup responsibilities start on scheduled date (see Appendix II). **OPR: FAA ATP-310. Due Date see Appendix II. PENDING COMPLETION.**

6. Ensure the seven FAA Service Level C ASOS locations switching to Service Level D change over on scheduled date (see Appendix II). FAA ATP-310 will provide notification of each change to appropriate users and ensure that any necessary observer training and Impact & Implementation issues are resolved prior to the Service Level change date at each ASOS location. **OPR: NWS CIO12; FAA ATP-310. Due Date see Appendix II. PENDING COMPLETION.**

7. When ready to cancel the AWIPS connectivity, perform the following:
    1. Remove all AWIPS Configuration Data in the ASOS. **OPR: NWS CIO12/AOMC**

    2. Coordinate deactivation of the Data Product filters at the FAA Weather Message Switching Center Replacement (WMSCR). At this point, only the FAA ADAS communications channel should be active. **OPR: NWS CIO12/ AOMC**

    3. Verify the site's METAR/SPECI data products with ALDARS information are delivered from the FAA WMSCR to the NWSTG and are available for distribution to the appropriate NWS forecast office(s). **OPR: NWS CIO12/AOMC**

    4. Ensure regional/local backup capability exists to retrieve METAR/SPECI data (see section 2.4). **OPR: NWS ASOS Regional Focal Points**

    5. Coordinate cancellation of dial-out phone lines for the ASOS locations. **OPR: NWS CIO12/AOMC; CIO14**

2.4 Back-Up Communications Strategy:

A key element in this transition is AWIPS connectivity will remain until all the elements of the ADAS transition are proven successful. Once the communications transfer is made at each ASOS location only FAA ADAS connectivity will exist for dissemination of the ASOS observations.

There is no current national FAA or NWS requirement for automated backup long-line communications for ADAS. The existing alternate method used by NWS field offices for obtaining ASOS METAR/SPECI, SHEF, and DSM/MSM data in a timely manner is through direct command mode remote access to the ASOS. Furthermore, if the ADAS long-line communications fails at those locations where CWO or tower observers are still available, they can phone the observation to the nearest Flight Service Station for long-line transmission.

If there are additional NWS Regional or local requirements for backup long-line communications to ensure availability or timeliness of the data then other more elegant solutions may be pursued. These potential solutions and their required efforts are beyond the scope of this plan.

3.0 ACTIP ACTIVITIES:

3.1 One-Time Activities

The following activities will be accomplished upon receipt of the RCs, concurrent with the development of the ACTIP, and preferably at least 30 days prior to first scheduled communications transfer (i.e., activation of the ADAS/ALDARS and deactivation of the AWIPS/dial around phone lines):

1. OPS22 will issue the first generic notice to users of the impending change. This notice is applicable to the entire group. Additional site-specific notices will be issued just prior to, and just after transition. This notification will identify the new bulletin headers for the ASOS messages when the communications pathway changes from NWS to FAA and also identify those locations where the augmentation/backup Service Levels will change. The purpose of this initial notification is to advise users to modify their software (decoders) to recognize the new bulletin headers where these messages are found and also alert them to the possible 4-5 minute delay in receiving these messages. Subsequent notifications will be issued when site specific dates of the impending change are firm.

2. OPS12 will coordinate the RC with the AWIPS Configuration Control Board and Data Review Group (DRG), to obtain clearance for the AWIPS deactivation on the planned dates.

3. OPS22 will notify CIO14 (Telecommunications Infrastructure Branch) of ASOS locations and communications transition dates.

4. OPS22 will alert the NWSTG and the AOMC of plans to transition the communications pathway and assure the NWSTG and AOMC, AWIPS CCB and DRG plans and activities are coordinated.

5. AUA-430 will obtain from AOS-700 their schedule for installation of the communications lines and factor this into the ACTIP master schedule.

6. AUA-430 will inform the FAA WMSCR of initial plans to transition the communications pathway for the ASOS locations and factor their preparation time and activities into the master ACTIP schedule.

7. A draft schedule will be prepared at least 30 days prior to first site transition. The schedule will be firmed up at least 15 days prior to first site transition.

8. Upon coordinated completion of the ACTIP transition schedule, AUA-430 will alert FAA ATP-310 of the firm schedule for ADAS/ALDARS service availability. AUA-430

will inform ATP-310 of any subsequent coordinated changes to the schedule in a timely manner.

9. AUA-430 will formally inform OPS22 of the official scheduled dates for ALDARS availability. This notification will be provided at least three working days prior to initial implementation of ALDARS availability. Upon receipt of this notification, OPS22 will inform NWS personnel of any changes to the schedule and order the implementation to begin as scheduled. OPS22 will also issue the second notice to users of the official scheduled ALDARS availability date(s).

10. ATP-310 will ensure all FAA observers are properly trained on backup/augmentation procedures including how to activate/deactivate ALDARS, and how to disseminate observations when communication failures occur. This training will be complete before ADAS/ALDARS is activated. Completion dates for this training are in Appendix II.

11. ATP-310 will establish dates for FAA assumption of augmentation/backup responsibilities. ATP-310 will inform OPS22 of these dates.

12. P-310 will manage FAA notification to affected airport authorities, and operators of the impending change of FAA Service Levels due to this transition. There are 7 ASOS locations which will transition from Service Level C to D; 23 ASOS locations which will transition from full-time Service Level C to part-time Service Level C/D.

3.2 Site-specific Activities:

The following site-specific activities will occur once the master schedule is firm, and all the preliminary One-Time activities are complete:

1. AUA-430 will coordinate with AOS-700 when site-specific long-line communications paths are installed and take appropriate action to establish ADAS connectivity. The NWS OPS12 (Maintenance Branch) will coordinate with AUA-430 on when to issue Modification Note (Mod Note) # 45, Errata 1, on procedures for connecting the FAA long-line communications circuit demarc to the ASOS. OPS12 will also coordinate with the NWS Regional ASOS Focal Points on tasking and scheduling technicians to accomplish this task. At some sites the communications demarc will be connected to the ACU from an existing CODEX modem. At other sites where there is no CODEX modem, a CODEX modem will be installed in the ACU. These differences are described in the Mod Note #45, Errata 1. AUA-430 and OPS12 will inform OPS22 when all technical preparations are complete at each site.

2. OPS22 will issue site-specific notices of the impending transfer to the appropriate user groups at least 24 hours prior to transition.

3. The nominal time for initiation of the ADAS/ALDARS availability, and deactivation of the AWIPS/dial out connectivity will be 1300 UTC on the scheduled dates in Appendix II. The AOMC will perform this task when required. This will involve enabling the ADAS/ALDARS interface and disabling the AWIPS communications interface according to the sequence of events as described in Section 2.3, Batch Transfer Strategy. The AOMC will notify the NWS ASOS Regional Focal Points, OPS22, CIO14, AOS-700, ATP-310, and AUA-430 when the transfer was successfully completed at each site.

4. OPS22 will issue a final notice of the successful site-specific transfer 24-72 hours after deactivation of the AWIPS/dial out connectivity.

5. CIO12/AOMC will coordinate with CIO14 to initiate action to terminate the ASOS communications dial-out line. This coordination will begin after CIO12/AOMC deactivates the AWIPS dial-out connectivity.

6. AUA-430 will notify ATP-310 of the successful transition.

Appendix I

Request For Changes

FAA ASOS Request For Change # 190

NWS CHANGE FORM
PART A

1. DATE SUBMITTED: 3/15/02

This form is in three parts. Submitters must complete unshaded blocks in Part A and as much of Part B as possible. WSH will complete Part C (implementation details). If there is no specific required change date, enter 60 days from date submitted. Address questions to NWS Change Management at (301) 713-1373. Submit change requests to the NWSRC mailbox (External: NWSRC@noaa.gov).

2. ORIGINATOR OFFICE	3. SUBMITTING AUTHORITY	4. COGNIZANT TECHNICAL INDIVIDUAL	5. ORIGINATOR TRACKING NUMBER
Federal Aviation Administration Weather Sensors, AUA-430 800 Independence Ave, S.W. Washington D.C. 20591	Name: Steve Imbembo Routing Code: AUA-430	Name: Bob Beatty Routing Code: AUA-430/CTA Phone: 202-554-6424	**FAA190**

6. SYSTEMS AFFECTED BY CHANGE

☐ DATA PRODUCTS (Complete Data Products Supplement)

☒ ASOS ☒ AWIPS ☐ CRS ☐ NEXRAD ☐ OTHER (specify) _____

7. WSH TRACKING NUMBER: AA716

8. TITLE OF CHANGE
Connect Forty NWS ASOS sites to ADAS for ITWS.

9. TYPE OF CHANGE
☒ HARDWARE ☐ SOFTWARE ☐ DOCUMENTATION ONLY

10. SITES AFFECTED (Attach Part B, Page 2, if needed)
See attached list

11. STATEMENT OF REQUIREMENT, PROBLEM, OR DEFICIENCY OF EXISTING SYSTEM (Include problem report reference numbers.)

The FAA Integrated Terminal Weather System (ITWS) requires surface observation data from the two closest ASOS stations. The ITWS acquires this data through the ADAS. The ASOSs covered in this RC currently disseminate observations via the NWS AWIPS.

12. KNOWN OR PROPOSED SOLUTION (Include source and description of new features or data products.)

The NWS will activate the ADAS port and configure the ASOS per Mod Note 45, Errata 1, to support either an external modem connection or an internal modem connection. In the case of an internal modem required, the NWS will install a CODEX modem in the ACU. See attached list indicates sites for internal or external modem connections. The FAA will order all telco circuits. The NWS will connect to the ASOS ACU. The NWS will disconnect the AWIPS circuit after the ADAS is connected, and the circuit works satisfactorily. The NWS will revise all CM documents. The NWS will coordinate header changes with AWIPS and NWSTG. The FAA will notify WMSCR of the changes.

13. ALTERNATE SOLUTIONS

None

14. REQUIRED CHANGE DATE	15. RATIONALE FOR REQUIRED CHANGE DATE (Include proposed priority, if known.)
ASAP	Mod for ATL ASOS required by as soon as possible. Remaining sites required by dates in attached list.

CCB/PMC/CMB DECISION

16. DECISION AUTHORITY LEVEL	☑ CCB LEVEL ONLY	☐ PMC or NWS CMB DECISION REQUIRED
17. CCB LEVEL DECISION	☑ APPROVED ☐ RECOMMEND APPROVAL ☐ DISAPPROVED	SIGNATURE: *R. C. Ahlberg Jr.* DATE SIGNED: *18 April 2002*

FOR USE ONLY WHEN PMC or NWS CMB DECISION REQUIRED

18. PMC OR NWS CMB DECISION	☐ APPROVED ☐ DISAPPROVED	SIGNATURE DATE SIGNED

NWS CHANGE FORM PART B	1. ORIGINATOR TRACKING NUMBER **FAA190**
All RC/ECP submissions must also address the following information. Indicate if any areas are unknown or do not apply. State why information is unknown and when it will be available. Attach extra pages if necessary, referencing each applicable subject.	2. WSH TRACKING NUMBER AA716

FUNDING INFORMATION

Estimate costs and indicate known sources of funding. (Include travel time, installation time, administrative time, and software development time when applicable.)	3. SOURCE OF FUNDING	4. TOTAL COST $9999.90
5. DEVELOPMENT COSTS (Estimate development costs) N/A		AMOUNT
6. OPERATIONAL TEST AND EVALUATION COSTS (Estimate test and evaluation costs) N/A		AMOUNT
7. PRODUCTION COSTS (Include acquisition, kit proofing, spares, delivery, and documentation costs) Codex modems provided by the FAA, 5 SIO cards provided by the NWS	FAA ITWS Program	AMOUNT $1002.90
8. COMMUNICATIONS SERVICE/CIRCUITS COSTS (Include installation and recurring costs) By the FAA	FAA ITWS Program	AMOUNT
9. IMPLEMENTATION SUPPORT COSTS (Include travel, installation, and administrative costs) NWS perform Mod Note 45, Errata 1, activities at 40 sites.	FAA ITWS Program	AMOUNT $8997.00
9A. LIFE CYCLE SUPPORT COSTS (Less communications service/circuits) None		AMOUNT

SUPPORTING INFORMATION AND SCHEDULES

Provide detailed information needed to implement the requested change.

10. DEVELOPMENT STATUS/SCHEDULE (Major milestones such as Start, Beta Test, and OT&E) None	11. PRODUCTION STATUS/SCHEDULE (Major milestones such as Solicitation, Contract Start Date, Delivery Date, Kit Proofing, etc.) N/A
12. IMPLEMENTATION/RETROFIT SCHEDULE From March 2002 to October 2003. See attached list.	13. FACILITY INFORMATION (Attach facility drawings/plans.) N/A
14. COMMUNICATIONS INSTALLED (Type required, who will order, and associated hardware required; attach Part B, Page 2, if needed.) FAA will order 4-wire, leased circuits as required. Codex 3600 modems will be provided by FAA.	15. COMMUNICATIONS SERVICE/CIRCUITS TO BE REMOVED NWS AWIPS circuits
16. REQUIRED CLEARANCES, WAIVERS, AND LICENSES (Include person or organization responsible for obtaining each) None.	17. COORDINATION OF CHANGE WITH OTHER CHANGES NWS will coordinate product header changes with AWIPS & generate AWIPS RC if required
18. PHYSICAL ITEMS AND DOCUMENTS AFFECTED (Include part, serial, and document numbers. Attach Part B, Page 2, if needed.) ACU and telco circuits. Mod Note 45, Errata 1,.	19. STAFF RESOURCE IMPACTS (Skills and workload impact on maintainers, operators, and managers.) NWS to perform Mod 45, Errata 1, activities. FAA to order telco and connect ACU to telco or external Codex modem.
20. LOGISTICS IMPACTS (Include facilities, maintenance, training, and support equipment impacts.) None	21. OPERATIONAL IMPACTS (Include continuity and back up needs and plans.) None

22. ADDITIONAL MAJOR CHANGE ACTIVITIES (Include who will accomplish each of them and staff hours required.)
None

NWS CHANGE FORM
PART C

1. ORIGINATOR TRACKING NUMBER
FAA190

WSH is responsible for Part C, but submitters may complete sections that would help clarify the change requirement or the necessary implementation actions.

2. WSH TRACKING NUMBER

AA716

3. CCB COST EVALUATION

NWS COST $ FAA COST $9999.90 DOD COST $ OTHER AGENCY COST $ (SPECIFY)_____ TOTAL COST $9999.90

4. IMPLEMENTATION DOCUMENTS REQUIRED

☒ Engineering Modification Note ☐ Software Release Notes ☐ Other Document (Specify)_____

ADDITIONAL IMPLEMENTATION INSTRUCTIONS (e.g., Implementation schedule, parts shipping instructions, equipment disposal procedures, additional documentation required, and status reporting instructions.) Include documentation, data input, notification vehicle, or specific action step required to verify completion of the implementation activity.

5. IMPLEMENTATION ACTIVITY REQUIRED	6. REQUIRED COMPLETION DATE	7. RESPONSIBLE PERSON AND OFFICE	8. DOCUMENT OR ACTION REQUIRED TO VERIFY COMPLETION
Coordinate and distribute implementation plan.		Dave Mannarano, W/OPS22 and	
Develop and provide ADAS transition schedule to OPS22		Steve Imbembo, FAA AUA-430	
Notify FAA Flight Service Stations of backup reporting responsibilities.		Steve Imbembo, FAA AUA-430	
Purchase necessary hardware for Mod Kit 052. Revise modification note 45 to include the new sites. Distribute instructions and mod kits to technicians.		Al Wissman, W/OPS12	
Arrange for user notifications of pending and completed program and site specific changes.		Dave Mannarano, W/OPS22	
Coordinate the availability of a technician to install modems and configure the ADAS port (see Mod Note 45).		NWS Focal Point	
Coordinate the ordering of telco and the connection of the ADAS/ACU port to the ADAS modem.		Steve Imbembo, FAA AUA-430	
Arrange for ASOS Operations and Monitoring Center (AOMC) cut over and testing at scheduled times for each site. Notify W/OPS35 when ADAS circuits are operational and transmitting reliably.		Kevin Conaty, W/OSO211	
Ensure DRG activities are initiated to accomplish this change.		Anthony Robinson, W/OS12	
Ensure this change is reported to the WSH through the Engineering Management Reporting System (EMRS). Record modification number 45 in Block 17a of the EMRS report.		NWS Focal Point	
Disconnect and cancel each AWIPS circuit upon notification change is implemented and data is acceptable.		Joe Petteway, W/OPS35	
Ensure OPS13 databases are updated to reflect baseline changes.		Michelle de Tommaso, W/OPS13	

ASOS Sites to be connected to ADAS to support ITWS

The 40 NWS ASOS sites to be connected to the ADAS to support the FAA ITWS Program are categorized below as INTERNAL or EXTERNAL and have a Not-Later-Than date for the Mod Note 45 activities to be performed.

TBD = To Be Determined

INTERNAL (Codex modem installed in ASOS ACU)

SID	Location		Mod Note 45 completion date
BOS	Boston	MA	TBD
BWI	Baltimore	MD	mid -2003
CLE	Cleveland	OH	TBD
CMH	Columbus	OH	TBD
CVG	Covington	KY	TBD
EWR	Newark	NJ	mid-2003
IAD	Dulles	VA	mid-2003
IAH	Houston	TX	Oct/Nov 2002 (Test connection done in 2001 per ECP FAA148)
ICT	Wichita	KS	TBD
IND	Indianapolis	IN	TBD
JFK	New York City	NY	mid-2003
LGA	New York City	NY	mid-2003
MIA	Miami	FL	08/23/2002
MSY	New Orleans	LA	TBD
ORD	Chicago	IL	mid-2003
PHL	Philadelphia	PA	TBD (Test connection done in 2001 per ECP FAA148)
PNE	Philadelphia	PA	TBD (Test connection done in 2001 per ECP FAA148)
SJU	San Juan	PR	TBD
SLC	Salt Lake City	UT	TBD
TPA	Tampa	FL	TBD

EXTERNAL (ASOS ACU connected to external, FAA-maintained Codex modem)

SID	Location		Mod Note 45 completion date
ATL	Atlanta	GA	Completed
BNA	Nashville	TN	TBD
CLT	Charlotte	NC	TBD
DAY	Dayton	OH	TBD
DCA	Washington	DC	mid-2003
DFW	Dallas	TX	TBD

DTW	Detroit	MI	TBD
LAS	Las Vegas	NV	TBD
MCI	Kansas City	MO	Oct/Nov 2002 (Test connection done in 2001 per ECP FAA148)
MCO	Orlando	FL	TBD
MKE	Milwaukee	WI	mid-2003
MSP	Minneapolis	MN	TBD
OKC	Oklahoma City	OK	07/26/2002
PBI	West Palm Beach	FL	08/23/2002
PHX	Phoenix	AZ	TBD
PIT	Pittsburgh	PA	TBD
RDU	Raleigh-Durham	NC	TBD
SDF	Louisville	KY	TBD
STL	St. Louis	MO	early/mid-2003
TUL	Tulsa	OK	TBD

FAA ASOS Request For Change # 191

NWS CHANGE FORM
PART A

1. DATE SUBMITTED: 3/15/02

This form is in three parts. Submitters must complete unshaded blocks in Part A and as much of Part B as possible. WSH will complete Part C (implementation details). If there is no specific required change date, enter 60 days from date submitted. Address questions to NWS Change Management at (301) 713-1373. Submit change requests to the NWSRC mailbox (External: NWSRC@noaa.gov).

2. ORIGINATOR OFFICE	3. SUBMITTING AUTHORITY	4. COGNIZANT TECHNICAL INDIVIDUAL	5. ORIGINATOR TRACKING NUMBER
Federal Aviation Administration Weather Sensors, AUA-430 800 Independence Ave, S.W. Washington D.C. 20591	Name: Steve Imbembo Routing Code: AUA-430	Name: Bob Beatty Routing Code: AUA-430/CTA Phone: 202-554-6424	**FAA191**

6. SYSTEMS AFFECTED BY CHANGE

☐ DATA PRODUCTS (Complete Data Products Supplement)

☒ ASOS ☒ AWIPS ☐ CRS ☐ NEXRAD ☐ OTHER (specify) _____

7. WSH TRACKING NUMBER
AA717
(AWIPS: AA717)
(DRG: AA798)

8. TITLE OF CHANGE
Connect Twenty Nine NWS ASOS sites to ADAS for FY02.

9. TYPE OF CHANGE
☒ HARDWARE ☐ SOFTWARE ☐ DOCUMENTATION ONLY

10. SITES AFFECTED (Attach Part B, Page 2, if needed)
See attached list

11. STATEMENT OF REQUIREMENT, PROBLEM, OR DEFICIENCY OF EXISTING SYSTEM (Include problem report reference numbers.)

A memorandum of agreement between NWS and FAA stipulates that all NWS ASOS augmentation/backup responsibilities will be transferred to the FAA. The FAA requires that the ASOS have thunderstorm reporting. At unstaffed service level C and D sites the thunderstorm reporting will be provided by connection to ADAS and ALDARS.

12. KNOWN OR PROPOSED SOLUTION (Include source and description of new features or data products.)

The NWS will activate the ADAS port and configure the ASOS per Mod Note 45, Errata 1, to support either an external modem connection or an internal modem connection, to install a Codex modem in the ACU. See attached list of sites for internal or external modem connections. The FAA will order all telco circuits. The NWS will connect to the ASOS ACU. The NWS will disconnect the AWIPS circuit after the ADAS is connected. The NWS will revise all CM documents. The NWS will coordinate header changes with AWIPS and NWSTG. The FAA will notify WMSCR of the changes. Data product changes will be accomplished through a separate DRG change request.

13. ALTERNATE SOLUTIONS

None

14. REQUIRED CHANGE DATE
ASAP

15. RATIONALE FOR REQUIRED CHANGE DATE (Include proposed priority, if known.)

All ASOS sites will be transitioned between March 25 and September 30, 2002.

CCB/PMC/CMB DECISION

16. DECISION AUTHORITY LEVEL	☑ CCB LEVEL ONLY	☐ PMC or NWS CMB DECISION REQUIRED
17. CCB LEVEL DECISION	☑ APPROVED ☐ RECOMMEND APPROVAL ☐ DISAPPROVED	SIGNATURE *R. C. Ahlberg Jr.* DATE SIGNED *10 May 2002*

FOR USE ONLY WHEN PMC or NWS CMB DECISION REQUIRED

18. PMC OR NWS CMB DECISION	☐ APPROVED ☐ DISAPPROVED	SIGNATURE DATE SIGNED

NWS CHANGE FORM PART B	1. ORIGINATOR TRACKING NUMBER **FAA191**
All RC/ECP submissions must also address the following information. Indicate if any areas are unknown or do not apply. State why information is unknown and when it will be available. Attach extra pages if necessary, referencing each applicable subject.	2. WSH TRACKING NUMBER AA717

FUNDING INFORMATION

Estimate costs and indicate known sources of funding. (Include travel time, installation time, administrative time, and software development time when applicable.)	3. SOURCE OF FUNDING	4. TOTAL COST $7570.80
5. DEVELOPMENT COSTS (Estimate development costs) N/A		AMOUNT
6. OPERATIONAL TEST AND EVALUATION COSTS (Estimate test and evaluation costs) N/A		AMOUNT
7. PRODUCTION COSTS (Include acquisition, kit proofing, spares, delivery, and documentation costs) Codex modems provided by the FAA, 9 SIO cards provided by the NWS	FAA ATP-310	AMOUNT $ 955.80
8. COMMUNICATIONS SERVICE/CIRCUITS COSTS (Include installation and recurring costs) By the FAA	FAA ATP-310	AMOUNT
9. IMPLEMENTATION SUPPORT COSTS (Include travel, installation, and administrative costs) NWS to perform Mod Note 45, Errata 1, activities at 29 sites.	FAA ATP-310	AMOUNT $6615.00
9A. LIFE CYCLE SUPPORT COSTS (Less communications service/circuits) None		AMOUNT

SUPPORTING INFORMATION AND SCHEDULES

Provide detailed information needed to implement the requested change.

10. DEVELOPMENT STATUS/SCHEDULE (Major milestones such as Start, Beta Test, and OT&E) None	11. PRODUCTION STATUS/SCHEDULE (Major milestones such as Solicitation, Contract Start Date, Delivery Date, Kit Proofing, etc.) N/A
12. IMPLEMENTATION/RETROFIT SCHEDULE NLT August 30, 2002 to support transition of all sites by Sept. 30, 2002.	13. FACILITY INFORMATION (Attach facility drawings/plans.) N/A
14. COMMUNICATIONS INSTALLED (Type required, who will order, and associated hardware required; attach Part B, Page 2, if needed.) FAA will order 4-wire, leased circuits as required. Codex 3600 modems will be provided by FAA.	15. COMMUNICATIONS SERVICE/CIRCUITS TO BE REMOVED NWS AWIPS circuits
16. REQUIRED CLEARANCES, WAIVERS, AND LICENSES (Include person or organization responsible for obtaining each) None.	17. COORDINATION OF CHANGE WITH OTHER CHANGES NWS will coordinate productheader changes with AWIPS & generate AWIPS RC if required
18. PHYSICAL ITEMS AND DOCUMENTS AFFECTED (Include part, serial, and document numbers. Attach Part B, Page 2, if needed.) ACU and telco circuits. Mod Note 45, Errata 1,.	19. STAFF RESOURCE IMPACTS (Skills and workload impact on maintainers, operators, and managers.) NWS to perform Mod 45, Errata 1, activities. FAA to to order telco and connect ACU to telco or external Codex modem.
20. LOGISTICS IMPACTS (Include facilities, maintenance, training, and support equipment impacts.) None	21. OPERATIONAL IMPACTS (Include continuity and back up needs and plans.) None
22. ADDITIONAL MAJOR CHANGE ACTIVITIES (Include who will accomplish each of them and staff hours required.) None	

NWS CHANGE FORM
PART C

1. ORIGINATOR TRACKING NUMBER
FAA191

WSH is responsible for Part C, but submitters may complete sections that would help clarify the change requirement or the necessary implementation actions.

2. WSH TRACKING NUMBER

AA717

3. CCB COST EVALUATION

NWS COST $ | FAA COST $7570.80 | DOD COST $ | OTHER AGENCY COST $ (SPECIFY)_____ | TOTAL COST $7570.80

4. IMPLEMENTATION DOCUMENTS REQUIRED

☒ Engineering Modification Note ☐ Software Release Notes ☐ Other Document (Specify)_____

ADDITIONAL IMPLEMENTATION INSTRUCTIONS (e.g., Implementation schedule, parts shipping instructions, equipment disposal procedures, additional documentation required, and status reporting instructions.) Include documentation, data input, notification vehicle, or specific action step required to verify completion of the implementation activity.

5. IMPLEMENTATION ACTIVITY REQUIRED	6. REQUIRED COMPLETION DATE	7. RESPONSIBLE PERSON AND OFFICE	8. DOCUMENT OR ACTION REQUIRED TO VERIFY COMPLETION
Coordinate and distribute implementation plan.		Dave Mannarano, W/OPS22 and	
Develop and provide ADAS transition schedule to OPS22.		Jerry Kranz, FAA/AUA430	
Purchase necessary hardware for Mod Kit 052. Revise modification note 45 to include the new sites. Distribute instructions and mod kits to technicians.		Al Wissman, W/OPS12	
Arrange for user notifications of pending and completed program and site specific changes.		Dave Mannarano, W/OPS22	
Coordinate the availability of a technician to install modems and configure the ADAS port (see Mod Note 52).		NWS Focal Points	
Coordinate the ordering of telco and the connection of the ADAS/ACU port to the ADAS modem.		Steve Imbembo, FAA AUA-430	
Arrange for ASOS Operations and Monitoring Center (AOMC) cut over and testing at scheduled times for each site. Notify W/OPS35 when ADAS circuits are operational and transmitting reliably.		Kevin Conaty, W/OSO211	
Ensure DRG activities are initiated to accomplish this change.		Anthony Robinson, W/OS12	
Ensure this change is reported to the WSH through the Engineering Management Reporting System (EMRS). Record modification number 45 in Block 17a of the EMRS report.		NWS Focal Points	
Disconnect and cancel each AWIPS circuit upon notification change is implemented and data is acceptable.		Herb Hawkins, W/OSOS35	
Ensure OPS13 databases are updated to reflect baseline changes.		Michelle de Tommaso, W/OPS13	

Transition Sites Listing

The 30 NWS ASOS sites to be connected to the ADAS as part of the ASOS augmentation/backup responsibility transition effort are categorized as internal or external below.

INTERNAL (Codex modem installed in ASOS ACU)

ABR	Aberdeen	SD
AMA	Amarillo	TX
BIS	Bismarck	ND
BRO	Brownsville	TX
CYS	Cheyenne	WY
DDC	Dodge City	KS
EYW	Key West	FL
GGW	Glasgow	MT
GJT	Grand Junction	CO
GLD	Goodland	KS
GRB	Green Bay	WI
GSP	Greer	SC
ILM	Wilmington	NC
JKL	Jackson	KY
LBF	North Platte	NE
LCH	Lake Charles	LA
MAF	Midland	TX
MSO	Missoula	MT
PAH	Paducah	KY
PDT	Pendleton	OR
PUB	Pueblo	CO
SJT	San Angelo	TX
TOP	Topeka	KS

EXTERNAL (ASOS ACU connected to external, FAA-maintained Codex modem)

BGM	Binghamton	NY
BOI	Boise	ID
GTF	Great Falls	MT
ISN	Williston	ND
MFR	Medford	OR
PIH	Pocatello	ID
SGF	Springfield	MO

NWS CHANGE FORM
PART A

1. DATE SUBMITTED: 06/10/2002

This form is in three parts. Submitters must complete unshaded blocks in Part A and as much of Part B as possible. WSH will complete Part C (implementation details). If there is no specific required change date, enter 60 days from date submitted. Address questions to NWS Change Management at (301) 713-1373. Submit change requests to the NWSRC mailbox (External: NWSRC@noaa.gov).

2. ORIGINATOR OFFICE	3. SUBMITTING AUTHORITY	4. COGNIZANT TECHNICAL INDIVIDUAL	5. ORIGINATOR TRACKING NUMBER
W/CR4	Name: Thomas Schwein Routing Code: W/CR4	Name: Thomas Townsend Routing Code: W/CR42x2 Phone: 816-891-7734 x422	CRH762

6. SYSTEMS AFFECTED BY CHANGE

☐ DATA PRODUCTS (Complete Data Products Supplement)

☑ ASOS ☐ AWIPS ☐ CRS ☐ NEXRAD ☐ OTHER (specify) _____

7. WSH TRACKING NUMBER: AA870

8. TITLE OF CHANGE

Connect Williston, North Dakota (ISN) ASOS to ADAS and ALDARS.

9. TYPE OF CHANGE

☑ HARDWARE ☐ SOFTWARE ☐ DOCUMENTATION ONLY

10. SITES AFFECTED (Attach Part B, Page 2, if needed)

ISN

11. STATEMENT OF REQUIREMENT, PROBLEM, OR DEFICIENCY OF EXISTING SYSTEM (Include problem report reference numbers.)

The Williston ASOS is currently communicating via NWS AWIPS and has a single site lightning sensor. Williston is ranked as an Aviation Service Level D airport but is currently augmented by local NWS staff to the Aviation Service Level C. In order to have better lightning reporting and be consistent with other similar locations in obtaining ALDARS information, we wish to connect the Williston ASOS to ADAS. ALDARS, by using the National Lightning Detection Network (NLDN), triangulates and computes different times of arrival of lightning strikes and it is able to accurately locate cloud-to-ground lightning strikes to an accuracy of 1/4 of a mile. While the single site sensor can detect cloud-to-cloud flashes they are unable to accurately locate them. The NLDN detects 80 to 90% of all cloud-to-ground lightning strokes.

12. KNOWN OR PROPOSED SOLUTION (Include source and description of new features or data products.)

Connect the Williston ASOS to ADAS. Configure ALDARS and deconfigure the lightning sensor at ISN. The current ISN lightning sensor will be returned to NRC.

13. ALTERNATE SOLUTIONS
N/A

14. REQUIRED CHANGE DATE
September 1, 2002

15. RATIONALE FOR REQUIRED CHANGE DATE (Include proposed priority, if known.)

This date is needed in order to comply with language found in the MOA between the FAA and NOAA NWS dated July 20, 2001.

CCB/PMC/CMB DECISION

16. DECISION AUTHORITY LEVEL	☑ CCB LEVEL ONLY	☐ PMC or NWS CMB DECISION REQUIRED
17. CCB LEVEL DECISION	☐ APPROVED ☐ RECOMMEND APPROVAL ☐ DISAPPROVED	SIGNATURE DATE SIGNED

FOR USE ONLY WHEN PMC or NWS CMB DECISION REQUIRED

18. PMC OR NWS CMB DECISION	☐ APPROVED ☐ DISAPPROVED	SIGNATURE DATE SIGNED

NWS CHANGE FORM **PART B**	1. ORIGINATOR TRACKING NUMBER CRH762
All RC/ECP submissions must also address the following information. Indicate if any areas are unknown or do not apply. State why information is unknown and when it will be available. Attach extra pages if necessary, referencing each applicable subject.	2. WSH TRACKING NUMBER AA870

FUNDING INFORMATION

Estimate costs and indicate known sources of funding. (Include travel time, installation time, administrative time, and software development time when applicable.)	3. SOURCE OF FUNDING	4. TOTAL COST $1141.24
5. DEVELOPMENT COSTS (Estimate development costs)		AMOUNT
6. OPERATIONAL TEST AND EVALUATION COSTS (Estimate test and evaluation costs)		AMOUNT
7. PRODUCTION COSTS (Include acquisition, kit proofing, spares, delivery, and documentation costs)		AMOUNT
8. COMMUNICATIONS SERVICE/CIRCUITS COSTS (Include installation and recurring costs) NWS will order and fund a leased line from the ASOS ACU at ISN to the CODEX modem in the Williston RCO Building for the connection to ADAS. One-time cost is $320 and recurring cost is $164/month.	NWS	AMOUNT $320.00
9. IMPLEMENTATION SUPPORT COSTS (Include travel, installation, and administrative costs) Deconfigure and remove the lightning sensor and return it to NRC.	NWS	AMOUNT $821.24
9A. LIFE CYCLE SUPPORT COSTS (Less communications service/circuits)		AMOUNT

SUPPORTING INFORMATION AND SCHEDULES

Provide detailed information needed to implement the requested change.

10. DEVELOPMENT STATUS/SCHEDULE (Major milestones such as Start, Beta Test, and OT&E)	11. PRODUCTION STATUS/SCHEDULE (Major milestones such as Solicitation, Contract Start Date, Delivery Date, Kit Proofing, etc.)
12. IMPLEMENTATION/RETROFIT SCHEDULE Deconfigure and remove the lightning sensor and return it to NRC. Deconfigure AWIPS communication path. Configure ADAS/ALDARS.	13. FACILITY INFORMATION (Attach facility drawings/plans.)
14. COMMUNICATIONS INSTALLED (Type required, who will order, and associated hardware required; attach Part B, Page 2, if needed.) Debbie Lingle will work with Herb Hawkins to establish the leased line between the ACU and the RCO Codex modem.	15. COMMUNICATIONS SERVICE/CIRCUITS TO BE REMOVED
16. REQUIRED CLEARANCES, WAIVERS, AND LICENSES (Include person or organization responsible for obtaining each)	17. COORDINATION OF CHANGE WITH OTHER CHANGES
18. PHYSICAL ITEMS AND DOCUMENTS AFFECTED (Include part, serial, and document numbers. Attach Part B, Page 2, if needed.) Site Table and Configuration Management Documents will need to be updated.	19. STAFF RESOURCE IMPACTS (Skills and workload impact on maintainers, operators, and managers.) The ASOS Electronics Technician will make the final connections to the Codex and work with AOMC to change the configuration for ADAS/ALDARS operation.
20. LOGISTICS IMPACTS (Include facilities, maintenance, training, and support equipment impacts.) None	21. OPERATIONAL IMPACTS (Include continuity and back up needs and plans.) None.
22. ADDITIONAL MAJOR CHANGE ACTIVITIES (Include who will accomplish each of them and staff hours required.)	

NWS CHANGE FORM
PART C

1. ORIGINATOR TRACKING NUMBER: CRH762

WSH is responsible for Part C, but submitters may complete sections that would help clarify the change requirement or the necessary implementation actions.

2. WSH TRACKING NUMBER: AA870

3. CCB COST EVALUATION

NWS COST $1141.24 FAA COST $ DOD COST $ OTHER AGENCY COST $ (SPECIFY)_____ TOTAL COST $1141.24

4. IMPLEMENTATION DOCUMENTS REQUIRED

☐ Engineering Modification Note ☐ Software Release Notes ☐ Other Document (Specify)_____

ADDITIONAL IMPLEMENTATION INSTRUCTIONS (e.g., Implementation schedule, parts shipping instructions, equipment disposal procedures, additional documentation required, and status reporting instructions.) Include documentation, data input, notification vehicle, or specific action step required to verify completion of the implementation activity.

5. IMPLEMENTATION ACTIVITY REQUIRED	6. REQUIRED COMPLETION DATE	7. RESPONSIBLE PERSON AND OFFICE	8. DOCUMENT OR ACTION REQUIRED TO VERIFY COMPLETION
Coordinate the availability of an electronics technician to make the connection and configure the ASOS to communicate via ADAS.		Tom Townsend, W/CR42	
Coordinate with the local FAA for the ADAS and ALDARS connectivity.		Steve Imbembo, FAA AUA-430	
Arrange for the installation of the leased line between the ASOS ACU and the RCO room Codex modem.		Herb Hawkins, W/OS35	
Arrange to have the ASOS ACU connection to AWIPS and dial backup deconfigured.		Tom Townsend, W/CR42	
Ensure this change is reported to the WSH through the Engineering Management Reporting System (EMRS). Record this RC number (CRH762) in Block 17a of the EMRS report.		Tom Townsend, W/CR42	
Ensure that an electronics technician deconfigures and removes the lightning sensor and returns it to NRC.		Tom Townsend, W/CR42	
Ensure the appropriate WSH management information systems and configuration management data bases are updated to reflect these changes.		Michelle de Tommaso, W/OS13	

Appendix II

ASOS Communications Transition Schedules

Appendix II

ASOS COMMUNICATIONS TRANSITION SCHEDULES

ASOS TO ADAS FOR ITWS TRANSITION SCHEDULE

FAA SVC LVL	SID	LOCATION		NWS RGN	FAA RGN	ADAS ACTIVE	AWIPS DEACT NOTICE
A	KATL	ATLANTA	GA	SRH	ASO	05/02/02	07/31/02
A	KBNA	NASHVILLE	TN	SRH	ASO	TBD	TBD
A	KBOS	BOSTON	MA	ERH	ANE	TBD	TBD
A	KBWI	BALTIMORE	MD	ERH	AEA	mid-03/TBD	TBD
A	KCLE	CLEVELAND	OH	ERH	AGL	TBD	TBD
A	KCLT	CHARLOTTE	NC	ERH	ASO	TBD	TBD
A	KCMH	COLUMBUS	OH	ERH	AGL	TBD	TBD
A	KCVG	COVINGTON	KY	ERH	ASO	TBD	TBD
A	KDAY	DAYTON	OH	ERH	AGL	TBD	TBD
A	KDCA	WASHINGTON	DC	ERH	AEA	mid-03/TBD	TBD
A	KDFW	DALLAS	TX	SRH	ASW	TBD	TBD
A	KDTW	DETROIT	MI	CRH	AGL	TBD	TBD
A	KEWR	NEWARK	NJ	ERH	AEA	mid-03/TBD	TBD
A	KIAD	DULLES	VA	ERH	AEA	mid-03/TBD	TBD
A	KIAH	HOUSTON	TX	SRH	ASW	Oct/Nov02	Oct/Nov02
A	KICT	WICHITA	KS	CRH	ACE	TBD	TBD
A	KIND	INDIANAPOLIS	IN	CRH	AGL	TBD	TBD
A	KJFK	NEW YORK CITY	NY	ERH	AEA	mid-03/TBD	TBD
A	KLAS	LAS VEGAS	NV	WRH	AWP	TBD	TBD
A	KLGA	NEW YORK CITY	NY	ERH	AEA	mid-03/TBD	TBD
A	KMCI	KANSAS CITY	MO	CRH	ACE	Oct/Nov02	Oct/Nov02
A	KMCO	ORLANDO	FL	SRH	ASO	TBD	TBD
A	KMIA	MIAMI	FL	SRH	ASO	08/23/02	08/28/02
A	KMKE	MILWAUKEE	WI	CRH	AGL	mid-03/TBD	TBD
A	KMSP	MINNEAPOLIS	MN	CRH	AGL	TBD	TBD
A	KMSY	NEW ORLEANS	LA	SRH	ASW	TBD	TBD
A	KOKC	OKLAHOMA CITY	OK	SRH	ASW	07/26/02	08/07/02
A	KORD	CHICAGO	IL	CRH	AGL	mid-03/TBD	TBD
B	KPBI	W.PALM BEACH	FL	SRH	ASO	08/23/02	08/28/02
A	KPHL	PHILADELPHIA	PA	ERH	AEA	TBD	TBD
A	KPHX	PHOENIX	AZ	WRH	AWP	TBD	TBD
A	KPIT	PITTSBURGH	PA	ERH	AEA	TBD	TBD
C	KPNE	PHILADELPHIA	PA	ERH	AEA	TBD	TBD
A	KRDU	RALEIGH-DURHAM	NC	ERH	ASO	TBD	TBD
A	KSDF	LOUISVILLE	KY	CRH	ASO	TBD	TBD
A	KSLC	SALT LAKE CITY	UT	WRH	ANM	TBD	TBD
A	KSTL	SAINT LOUIS	MO	CRH	ACE	erly/mid-03/TBD	TBD
A	KTPA	TAMPA	FL	SRH	ASO	TBD	TBD
A	KTUL	TULSA	OK	SRH	ASW	TBD	TBD
B	TSJU	SAN JUAN	PR	SRH	ASO	TBD	TBD

TBD = To Be Determined

Appendix II

ASOS COMMUNICATIONS TRANSITION SCHEDULES

ASOS TO ADAS TRANSITION SCHEDULE

FAA SID	LOCATION		NWS RGN	FAA RGN	FAA TRAINING COMPLETE	ADAS/ ALDARS ACTIVE	FAA ASSUMES AUG/BACKUP or SVC LVL D UNATTENDED	AWIPS DECONFIG & COMMS DEACTIV NOTICE ISSUED	SVC LVL
KAMA	AMARILO	TX	SRH	ASW	09/18/02	09/20/02	10/01/02	09/24/02	C
KBGM	BINGHAMTON	NY	ERH	AEA	07/24/02	07/26/02	10/01/02	07/31/02	C
KBIS	BISMARK	ND	CRH	AGL	09/18/02	09/20/02	10/01/02	09/24/02	C
KBOI	BOISE	ID	WRH	ANM	07/31/02	08/02/02	10/01/02	08/14/02	C
KBRO	BROWNSVILLE	TX	SRH	ASW	09/18/02	09/20/02	10/01/02	09/24/02	C
KCYS	CHEYENNE	WY	CRH	ANM	09/18/02	09/20/02	10/01/02	09/24/02	C
KEYW	KEY WEST	FL	SRH	ASO	09/18/02	09/20/02	10/01/02	09/24/02	C
KGJT	GRAND JUNCTN	CO	CRH	ANM	09/11/02	09/13/02	10/01/02	09/18/02	C
KGRB	GREEN BAY	WI	CRH	AGL	09/18/02	09/20/02	10/10/02	09/25/02	C
KGSP	GREER	SC	ERH	ASO	09/18/02	09/20/02	10/01/02	09/25/02	C
KGTF	GREAT FALLS	MT	WRH	ANM	09/11/02	09/13/02*	10/01/02	09/18/02	C
KILM	WILMINGTON	NC	ERH	ASO	09/18/02	09/20/02	10/01/02	09/25/02	C
KLCH	LAKE CHARLES	LA	SRH	ASW	09/18/02	09/20/02	10/01/02	09/26/02	C
KMAF	MIDLAND	TX	SRH	ASW	09/18/02	09/20/02	10/01/02	09/26/02	C
KMFR	MEDFORD	OR	WRH	ANM	07/31/02	08/02/02	10/01/02	08/14/02	C
KMSO	MISSOULA	MT	WRH	ANM	09/18/02	09/20/02	10/01/02	09/26/02	C
KPAH	PADUCAH	KY	CRH	ASO	09/18/02	09/20/02	10/01/02	09/26/02	C
KPDT	PENDLETON	OR	WRH	ANM	09/18/02	09/20/02	10/01/02	09/26/02	C
KPIH	POCATELLO	ID	WRH	ANM	07/31/02	08/02/02	10/01/02	08/14/02	C
KPUB	PEUBLO	CO	CRH	ANM	09/18/02	09/20/02	10/01/02	09/26/02	C
KSGF	SPRINGFIELD	MO	CRH	ACE	07/24/02	Completed*	10/01/02	07/31/02	C
KSJT	SAN ANGELO	TX	SRH	ASW	09/18/02	09/20/02	10/01/02	09/26/02	C
KTOP	TOPEKA	KS	CRH	ACE	09/11/02	09/13/02	10/01/02	09/18/02	C
KABR	ABERDEEN	SD	CRH	AGL	n/a	09/20/02	10/01/02	09/24/02	D
KDDC	DODGE CITY	KS	CRH	ACE	n/a	09/13/02	10/01/02	09/18/02	D
KGGW	GLASGOW	MT	WRH	ANM	n/a	09/20/02	10/01/02	09/25/02	D
KGLD	GOODLAND	KS	CRH	ACE	n/a	09/13/02	10/01/02	09/18/02	D
KISN#	WILLISTON	ND	CRH	AGL	n/a	09/20/02	10/01/02	09/25/02	D
KJKL	JACKSON	KY	CRH	ASO	n/a	09/20/02	10/01/02	09/25/02	D
KLBF	NORTH PLATTE	NE	CRH	ACE	n/a	09/13/02	10/01/02	09/18/02	D

* GTF and SGF are 24-hours Air Traffic Control Towers. ALDARS will not be enabled at this time.
# ISN will transfer from FAA Service Level C to FAA Service Level D on October 1, 2002.
n/a = not applicable

Appendix III

ASOS Collective Message Headers

Appendix III

ASOS MESSAGE HEADERS

ASOS TO ADAS FOR ITWS TRANSITION WMO COMMUNICATION HEADERS

METAR MESSAGES

ASOS SID	WMO HEADER CURRENT	WMO COLLECTIVE CURRENT	NEW COLLECTIVE
KATL	SAUS42 KFFC	SAUS80 KWBC	SAUS70 KWBC
KBNA	SAUS44 KOHX	SAUS80 KWBC	SAUS70 KWBC
KBOS	SAUS41 KBOX	SAUS80 KWBC	SAUS70 KWBC
KBWI	SAUS41 KLWX	SAUS80 KWBC	SAUS70 KWBC
KCLE	SAUS41 KCLE	SAUS80 KWBC	SAUS70 KWBC
KCLT	SAUS42 KGSP	SAUS80 KWBC	SAUS70 KWBC
KCMH	SAUS41 KILN	SAUS80 KWBC	SAUS70 KWBC
KCVG	SAUS41 KILN	SAUS80 KWBC	SAUS70 KWBC
KDAY	SAUS41 KILN	SAUS80 KWBC	SAUS70 KWBC
KDCA	SAUS41 KLWX	SAUS80 KWBC	SAUS70 KWBC
KDFW	SAUS44 KFWD	SAUS80 KWBC	SAUS70 KWBC
KDTW	SAUS43 KDTX	SAUS80 KWBC	SAUS70 KWBC
KEWR	SAUS41 KOKX	SAUS80 KWBC	SAUS70 KWBC
KIAD	SAUS41 KLWX	SAUS80 KWBC	SAUS70 KWBC
KIAH	SAUS44 KHGX	SAUS80 KWBC	SAUS70 KWBC
KICT	SAUS43 KICT	SAUS80 KWBC	SAUS70 KWBC
KIND	SAUS43 KIND	SAUS80 KWBC	SAUS70 KWBC
KJFK	SAUS41 KOKX	SAUS80 KWBC	SAUS70 KWBC
KLAS	SAUS45 KVEF	SAUS80 KWBC	SAUS70 KWBC
KLGA	SAUS41 KOKX	SAUS80 KWBC	SAUS70 KWBC
KMCI	SAUS43 KEAX	SAUS80 KWBC	SAUS70 KWBC
KMCO	SAUS42 KMLB	SAUS80 KWBC	SAUS70 KWBC
KMIA	SAUS42 KMFL	SAUS80 KWBC	SAUS70 KWBC
KMKE	SAUS43 KMKX	SAUS80 KWBC	SAUS70 KWBC
KMSP	SAUS43 KMPX	SAUS80 KWBC	SAUS70 KWBC
KMSY	SAUS44 KLIX	SAUS80 KWBC	SAUS70 KWBC
KOKC	SAUS44 KOUN	SAUS80 KWBC	SAUS70 KWBC
KORD	SAUS43 KLOT	SAUS80 KWBC	SAUS70 KWBC
KPBI	SAUS42 KMLB	SAUS80 KWBC	SAUS70 KWBC
KPHL	SAUS41 KPHI	SAUS80 KWBC	SAUS70 KWBC
KPHX	SAUS45 KPSR	SAUS80 KWBC	SAUS70 KWBC
KPIT	SAUS41 KPBZ	SAUS80 KWBC	SAUS70 KWBC
KPNE	SAUS41 KPHI	SAUS80 KWBC	SAUS70 KWBC
KRDU	SAUS42 KRAH	SAUS80 KWBC	SAUS70 KWBC
KSDF	SAUS43 KLMK	SAUS80 KWBC	SAUS70 KWBC
KSLC	SAUS45 KSLC	SAUS80 KWBC	SAUS70 KWBC
KSTL	SAUS43 KLSX	SAUS80 KWBC	SAUS70 KWBC
KTPA	SAUS42 KTBW	SAUS80 KWBC	SAUS70 KWBC
KTUL	SAUS44 KTSA	SAUS80 KWBC	SAUS70 KWBC
TJSJ	SAUS42 TJSJ	SAUS80 KWBC	SAUS70 KWBC

SPECI MESSAGES

ASOS SID	WMO HEADER CURRENT	WMO COLLECTIVE CURRENT	NEW COLLECTIVE
KATL	SPUS42 KFFC	SPUS80 KWBC	SPUS70 KWBC
KBNA	SPUS44 KOHX	SPUS80 KWBC	SPUS70 KWBC
KBOS	SPUS41 KBOX	SPUS80 KWBC	SPUS70 KWBC
KBWI	SPUS41 KLWX	SPUS80 KWBC	SPUS70 KWBC
KCLE	SPUS41 KCLE	SPUS80 KWBC	SPUS70 KWBC
KCLT	SPUS42 KGSP	SPUS80 KWBC	SPUS70 KWBC
KCMH	SPUS41 KILN	SPUS80 KWBC	SPUS70 KWBC
KCVG	SPUS41 KILN	SPUS80 KWBC	SPUS70 KWBC
KDAY	SPUS41 KILN	SPUS80 KWBC	SPUS70 KWBC
KDCA	SPUS41 KLWX	SPUS80 KWBC	SPUS70 KWBC
KDFW	SPUS44 KFWD	SPUS80 KWBC	SPUS70 KWBC
KDTW	SPUS43 KDTX	SPUS80 KWBC	SPUS70 KWBC
KEWR	SPUS41 KOKX	SPUS80 KWBC	SPUS70 KWBC
KIAD	SPUS41 KLWX	SPUS80 KWBC	SPUS70 KWBC
KIAH	SPUS44 KHGX	SPUS80 KWBC	SPUS70 KWBC
KICT	SPUS43 KICT	SPUS80 KWBC	SPUS70 KWBC
KIND	SPUS43 KIND	SPUS80 KWBC	SPUS70 KWBC
KJFK	SPUS41 KOKX	SPUS80 KWBC	SPUS70 KWBC
KLAS	SPUS45 KVEF	SPUS80 KWBC	SPUS70 KWBC
KLGA	SPUS41 KOKX	SPUS80 KWBC	SPUS70 KWBC
KMCI	SPUS43 KEAX	SPUS80 KWBC	SPUS70 KWBC
KMCO	SPUS42 KMLB	SPUS80 KWBC	SPUS70 KWBC
KMIA	SPUS42 KMFL	SPUS80 KWBC	SPUS70 KWBC
KMKE	SPUS43 KMKX	SPUS80 KWBC	SPUS70 KWBC
KMSP	SPUS43 KMPX	SPUS80 KWBC	SPUS70 KWBC
KMSY	SPUS44 KLIX	SPUS80 KWBC	SPUS70 KWBC
KOKC	SPUS44 KOUN	SPUS80 KWBC	SPUS70 KWBC
KORD	SPUS43 KLOT	SPUS80 KWBC	SPUS70 KWBC
KPBI	SPUS42 KMLB	SPUS80 KWBC	SPUS70 KWBC
KPHL	SPUS41 KPHI	SPUS80 KWBC	SPUS70 KWBC
KPHX	SPUS45 KPSR	SPUS80 KWBC	SPUS70 KWBC
KPIT	SPUS41 KPBZ	SPUS80 KWBC	SPUS70 KWBC
KPNE	SPUS41 KPHI	SPUS80 KWBC	SPUS70 KWBC
KRDU	SPUS42 KRAH	SPUS80 KWBC	SPUS70 KWBC
KSDF	SPUS43 KLMK	SPUS80 KWBC	SPUS70 KWBC
KSLC	SPUS45 KSLC	SPUS80 KWBC	SPUS70 KWBC
KSTL	SPUS43 KLSX	SPUS80 KWBC	SPUS70 KWBC
KTPA	SPUS42 KTBW	SPUS80 KWBC	SPUS70 KWBC
KTUL	SPUS44 KTSA	SPUS80 KWBC	SPUS70 KWBC
TJSJ	SPUS42 TJSJ	SPUS80 KWBC	SPUS70 KWBC

ASOS SHEF PRECIP CRITERIA MESSAGE

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KATL	SRUS62 KFFC	SRUS27 KZTL	NKARR7ZTL	ATLANTA
KBNA	SRUS64 KOHX	SRUS27 KZME	NKARR7ZME	MEMPHIS
KBOS	SRUS61 KBOX	SRUS27 KZBW	NKARR7ZBW	NASHUA
KBWI	SRUS61 KLWX	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KCLE	SRUS61 KCLE	SRUS27 KZOB	NKARR7ZOB	CLEVELAND
KCLT	SRUS62 KGSP	SRUS27 KZTL	NKARR7ZTL	ATLANTA
KCMH	SRUS61 KILN	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KCVG	SRUS61 KILN	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KDAY	SRUS61 KILN	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KDCA	SRUS61 KLWX	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KDFW	SRUS64 KFWD	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KDTW	SRUS63 KDTX	SRUS27 KZOB	NKARR7ZOB	CLEVELAND
KEWR	SRUS61 KOKX	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KIAD	SRUS61 KLWX	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KIAH	SRUS64 KHGX	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KICT	SRUS63 KICT	SRUS27 KZKC	NKARR7ZKC	OLATHE
KIND	SRUS63 KIND	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KJFK	SRUS61 KOKX	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KLAS	SRUS65 KVEF	SRUS27 KZLA	NKARR7ZLA	LOS ANGELES
KLGA	SRUS61 KOKX	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KMCI	SRUS63 KEAX	SRUS27 KZKC	NKARR7ZKC	OLATHE
KMCO	SRUS62 KMLB	SRUS27 KZJX	NKARR7ZJX	JACKSONVILLE
KMIA	SRUS62 KMFL	SRUS27 KZMA	NKARR7ZMA	MIAMI
KMKE	SRUS63 KMKX	SRUS27 KZAU	NKARR7ZAU	CHICAGO
KMSP	SRUS63 KMPX	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KMSY	SRUS64 KLIX	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KOKC	SRUS64 KOUN	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KORD	SRUS63 KLOT	SRUS27 KZAU	NKARR7ZAU	CHICAGO
KPBI	SRUS62 KPBI	SRUS27 KZMA	NKARR7ZMA	MIAMI
KPHL	SRUS61 KPHI	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KPHX	SRUS65 KPSR	SRUS27 KZAB	NKARR7ZAB	ALBUQUERQUE
KPIT	SRUS61 KPBZ	SRUS27 KZOB	NKARR7ZOB	CLEVELAND
KPNE	SRUS61 KPHI	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KRDU	SRUS62 KRAH	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KSDF	SRUS63 KLMK	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KSLC	SRUS65 KSLC	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KSTL	SRUS63 KLSX	SRUS27 KZKC	NKARR7ZKC	OLATHE
KTPA	SRUS62 KTBW	SRUS27 KZMA	NKARR7ZMA	MIAMI
KTUL	SRUS64 KTSA	SRUS27 KZKC	NKARR7ZKC	OLATHE
TJSJ	SRUS62 TJSJ	SRUS27 KZSU	NKARR7ZSU	SAN JUAN

ASOS SHEF HOURLY ROUTINE MESSAGE

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KATL	SRUS72 KFFC	SRUS27 KZTL	NKARR7ZTL	ATLANTA
KBNA	SRUS74 KOHX	SRUS27 KZME	NKARR7ZME	MEMPHIS
KBOS	SRUS71 KBOX	SRUS27 KZBW	NKARR7ZBW	NASHUA
KBWI	SRUS71 KLWX	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KCLE	SRUS71 KCLE	SRUS27 KZOB	NKARR7ZOB	CLEVELAND
KCLT	SRUS72 KGSP	SRUS27 KZTL	NKARR7ZTL	ATLANTA
KCMH	SRUS71 KILN	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KCVG	SRUS71 KILN	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KDAY	SRUS71 KILN	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KDCA	SRUS71 KLWX	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KDFW	SRUS74 KFWD	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KDTW	SRUS73 KDTX	SRUS27 KZOB	NKARR7ZOB	CLEVELAND
KEWR	SRUS71 KOKX	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KIAD	SRUS71 KLWX	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KIAH	SRUS74 KHGX	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KICT	SRUS73 KICT	SRUS27 KZKC	NKARR7ZKC	OLATHE
KIND	SRUS73 KIND	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KJFK	SRUS71 KOKX	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KLAS	SRUS75 KVEF	SRUS27 KZLA	NKARR7ZLA	LOS ANGELES
KLGA	SRUS71 KOKX	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KMCI	SRUS73 KEAX	SRUS27 KZKC	NKARR7ZKC	OLATHE
KMCO	SRUS72 KMLB	SRUS27 KZJX	NKARR7ZJX	JACKSONVILLE
KMIA	SRUS72 KMFL	SRUS27 KZMA	NKARR7ZMA	MIAMI
KMKE	SRUS73 KMKX	SRUS27 KZAU	NKARR7ZAU	CHICAGO
KMSP	SRUS73 KMPX	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KMSY	SRUS74 KLIX	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KOKC	SRUS74 KOUN	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KORD	SRUS73 KLOT	SRUS27 KZAU	NKARR7ZAU	CHICAGO
KPBI	SRUS72 KPBI	SRUS27 KZMA	NKARR7ZMA	MIAMI
KPHL	SRUS71 KPHI	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KPHX	SRUS75 KPSR	SRUS27 KZAB	NKARR7ZAB	ALBUQUERQUE
KPIT	SRUS71 KPBZ	SRUS27 KZOB	NKARR7ZOB	CLEVELAND
KPNE	SRUS71 KPHI	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KRDU	SRUS72 KRAH	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KSDF	SRUS73 KLMK	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KSLC	SRUS75 KSLC	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KSTL	SRUS73 KLSX	SRUS27 KZKC	NKARR7ZKC	OLATHE
KTPA	SRUS72 KTBW	SRUS27 KZMA	NKARR7ZMA	MIAMI
KTUL	SRUS74 KTSA	SRUS27 KZKC	NKARR7ZKC	OLATHE
TJSJ	SRUS72 TJSJ	SRUS27 KZSU	NKARR7ZSU	SAN JUAN

ASOS DAILY SUMMARY

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KATL	CXUS42 KFFC	CDUS27 KZTL	NKADSMZTL	ATLANTA
KBNA	CXUS44 KOHX	CDUS27 KZME	NKADSMZME	MEMPHIS
KBOS	CXUS41 KBOX	CDUS27 KZBW	NKADSMZBW	NASHUA
KBWI	CXUS41 KLWX	CDUS27 KZDC	NKADSMZDC	WASHINGTON DC
KCLE	CXUS41 KCLE	CDUS27 KZOB	NKADSMZOB	CLEVELAND
KCLT	CXUS42 KGSP	CDUS27 KZTL	NKADSMZTL	ATLANTA
KCMH	CXUS41 KILN	CDUS27 KZID	NKADSMZID	INDIANAPOLIS
KCVG	CXUS41 KILN	CDUS27 KZID	NKADSMZID	INDIANAPOLIS
KDAY	CXUS41 KILN	CDUS27 KZID	NKADSMZID	INDIANAPOLIS
KDCA	CXUS41 KLWX	CDUS27 KZDC	NKADSMZDC	WASHINGTON DC
KDFW	CXUS44 KFWD	CDUS27 KZFW	NKADSMZFW	FORT WORTH
KDTW	CXUS43 KDTX	CDUS27 KZOB	NKADSMZOB	CLEVELAND
KEWR	CXUS41 KOKX	CDUS27 KZNY	NKADSMZNY	NEW YORK
KIAD	CXUS41 KLWX	CDUS27 KZDC	NKADSMZDC	WASHINGTON DC
KIAH	CXUS44 KHGX	CDUS27 KZHU	NKADSMZHU	HOUSTON
KICT	CXUS43 KICT	CDUS27 KZKC	NKADSMZKC	OLATHE
KIND	CXUS43 KIND	CDUS27 KZID	NKADSMZID	INDIANAPOLIS
KJFK	CXUS41 KOKX	CDUS27 KZNY	NKADSMZNY	NEW YORK
KLAS	CXUS45 KVEF	CDUS27 KZLA	NKADSMZLA	LOS ANGELES
KLGA	CXUS41 KOKX	CDUS27 KZNY	NKADSMZNY	NEW YORK
KMCI	CXUS43 KEAX	CDUS27 KZKC	NKADSMZKC	OLATHE
KMCO	CXUS42 KMLB	CDUS27 KZJX	NKADSMZJX	JACKSONVILLE
KMIA	CXUS42 KMFL	CDUS27 KZMA	NKADSMZMA	MIAMI
KMKE	CXUS43 KMKX	CDUS27 KZAU	NKADSMZAU	CHICAGO
KMSP	CXUS43 KMPX	CDUS27 KZMP	NKADSMZMP	MINNEAPOLIS
KMSY	CXUS44 KLIX	CDUS27 KZHU	NKADSMZHU	HOUSTON
KOKC	CXUS44 KOUN	CDUS27 KZFW	NKADSMZFW	FORT WORTH
KORD	CXUS43 KLOT	CDUS27 KZAU	NKADSMZAU	CHICAGO
KPBI	CXUS42 KMLB	CDUS27 KZMA	NKADSMZMA	MIAMI
KPHL	CXUS41 KPHI	CDUS27 KZNY	NKADSMZNY	NEW YORK
KPHX	CXUS45 KPSR	CDUS27 KZAB	NKADSMZAB	ALBUQUERQUE
KPIT	CXUS41 KPBZ	CDUS27 KZOB	NKADSMZOB	CLEVELAND
KPNE	CXUS41 KPHI	CDUS27 KZNY	NKADSMZNY	NEW YORK
KRDU	CXUS42 KRAH	CDUS27 KZDC	NKADSMZDC	WASHINGTON DC
KSDF	CXUS43 KLMK	CDUS27 KZID	NKADSMZID	INDIANAPOLIS
KSLC	CXUS45 KSLC	CDUS27 KZLC	NKADSMZLC	SALT LAKE CITY
KSTL	CXUS43 KLSX	CDUS27 KZKC	NKADSMZKC	OLATHE
KTPA	CXUS42 KTBW	CDUS27 KZMA	NKADSMZMA	MIAMI
KTUL	CXUS44 KTSA	CDUS27 KZKC	NKADSMZKC	OLATHE
TJSJ	CXUS42 KJSJ	CDUS27 KZSU	NKADSMZSU	SAN JUAN

ASOS MONTHLY SUMMARY MESSAGE

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KATL	CSUS42 KFFC	CSUS27 KZTL	NKAMSMZTL	ATLANTA
KBNA	CSUS44 KOHX	CSUS27 KZME	NKAMSMZME	MEMPHIS
KBOS	CSUS41 KBOX	CSUS27 KZBW	NKAMSMZBW	NASHUA
KBWI	CSUS41 KLWX	CSUS27 KZDC	NKAMSMZDC	WASHINGTON DC
KCLE	CSUS41 KCLE	CSUS27 KZOB	NKAMSMZOB	CLEVELAND
KCLT	CSUS42 KGSP	CSUS27 KZTL	NKAMSMZTL	ATLANTA
KCMH	CSUS41 KILN	CSUS27 KZID	NKAMSMZID	INDIANAPOLIS
KCVG	CSUS41 KILN	CSUS27 KZID	NKAMSMZID	INDIANAPOLIS
KDAY	CSUS41 KILN	CSUS27 KZID	NKAMSMZID	INDIANAPOLIS
KDCA	CSUS41 KLWX	CSUS27 KZDC	NKAMSMZDC	WASHINGTON DC
KDFW	CSUS44 KFWD	CSUS27 KZFW	NKAMSMZFW	FORT WORTH
KDTW	CSUS43 KDTX	CSUS27 KZOB	NKAMSMZOB	CLEVELAND
KEWR	CSUS41 KOKX	CSUS27 KZNY	NKAMSMZNY	NEW YORK
KIAD	CSUS41 KLWX	CSUS27 KZDC	NKAMSMZDC	WASHINGTON DC
KIAH	CSUS44 KHGX	CSUS27 KZHU	NKAMSMZHU	HOUSTON
KICT	CSUS43 KICT	CSUS27 KZKC	NKAMSMZKC	OLATHE
KIND	CSUS43 KIND	CSUS27 KZID	NKAMSMZID	INDIANAPOLIS
KISN	CSUS43 KBIS	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KJFK	CSUS41 KOKX	CSUS27 KZNY	NKAMSMZNY	NEW YORK
KLAS	CSUS45 KVEF	CSUS27 KZLA	NKAMSMZLA	LOS ANGELES
KLGA	CSUS41 KOKX	CSUS27 KZNY	NKAMSMZNY	NEW YORK
KMCI	CSUS43 KEAX	CSUS27 KZKC	NKAMSMZKC	OLATHE
KMCO	CSUS42 KMLB	CSUS27 KZJX	NKAMSMZJX	JACKSONVILLE
KMIA	CSUS42 KMFL	CSUS27 KZMA	NKAMSMZMA	MIAMI
KMKE	CSUS43 KMKX	CSUS27 KZAU	NKAMSMZAU	CHICAGO
KMSP	CSUS43 KMPX	CSUS27 KZMP	NKAMSMZMP	MINNEAPOLIS
KMSY	CSUS44 KLIX	CSUS27 KZHU	NKAMSMZHU	HOUSTON
KOKC	CSUS44 KOUN	CSUS27 KZFW	NKAMSMZFW	FORT WORTH
KORD	CSUS43 KLOT	CSUS27 KZAU	NKAMSMZAU	CHICAGO
KPBI	CSUS42 KMLB	CSUS27 KZMA	NKAMSMZMA	MIAMI
KPHL	CSUS41 KPHI	CSUS27 KZNY	NKAMSMZNY	NEW YORK
KPHX	CSUS45 KPSR	CSUS27 KZAB	NKAMSMZAB	ALBUQUERQUE
KPIT	CSUS41 KPBZ	CSUS27 KZOB	NKAMSMZOB	CLEVELAND
KPNE	CSUS41 KPHI	CSUS27 KZNY	NKAMSMZNY	NEW YORK
KRDU	CSUS42 KRAH	CSUS27 KZDC	NKAMSMZDC	WASHINGTON DC
KSDF	CSUS43 KLMK	CSUS27 KZID	NKAMSMZID	INDIANAPOLIS
KSLC	CSUS45 KSLC	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KSTL	CSUS43 KLSX	CSUS27 KZKC	NKAMSMZKC	OLATHE
KTPA	CSUS42 KTBW	CSUS27 KZMA	NKAMSMZMA	MIAMI
KTUL	CSUS44 KTSA	CSUS27 KZKC	NKAMSMZKC	OLATHE
TJSJ	CSUS42 KJSJ	CSUS27 KZSU	NKAMSMZSU	SAN JUAN

Appendix III

ASOS MESSAGE HEADERS

ASOS TO ADAS TRANSITION WMO COMMUNICATION HEADERS

METAR MESSAGES

ASOS SID	WMO HEADER CURRENT	WMO COLLECTIVE CURRENT	NEW COLLECTIVE
KABR	SAUS43 KABR	SAUS80 KWBC	SAUS70 KWBC
KAMA	SAUS44 KAMA	SAUS80 KWBC	SAUS70 KWBC
KBGM	SAUS41 KBGM	SAUS80 KWBC	SAUS70 KWBC
KBIS	SAUS43 KBIS	SAUS80 KWBC	SAUS70 KWBC
KBOI	SAUS45 KBOI	SAUS80 KWBC	SAUS70 KWBC
KBRO	SAUS44 KBRO	SAUS80 KWBC	SAUS70 KWBC
KCYS	SAUS45 KCYS	SAUS80 KWBC	SAUS70 KWBC
KDDC	SAUS43 KDDC	SAUS80 KWBC	SAUS70 KWBC
KEYW	SAUS42 KEYW	SAUS80 KWBC	SAUS70 KWBC
KGGW	SAUS45 KGGW	SAUS80 KWBC	SAUS70 KWBC
KGJT	SAUS45 KGJT	SAUS80 KWBC	SAUS70 KWBC
KGLD	SAUS43 KGLD	SAUS80 KWBC	SAUS70 KWBC
KGRB	SAUS43 KGRB	SAUS80 KWBC	SAUS70 KWBC
KGSP	SAUS42 KGSP	SAUS80 KWBC	SAUS70 KWBC
KGTF	SAUS45 KTFX	SAUS80 KWBC	SAUS70 KWBC
KILM	SAUS42 KILM	SAUS80 KWBC	SAUS70 KWBC
KISN	SAUS43 KBIS	SAUS80 KWBC	SAUS70 KWBC
KJKL	SAUS43 KJKL	SAUS80 KWBC	SAUS70 KWBC
KLBF	SAUS43 KLBF	SAUS80 KWBC	SAUS70 KWBC
KLCH	SAUS44 KLCH	SAUS80 KWBC	SAUS70 KWBC
KMAF	SAUS44 KMAF	SAUS80 KWBC	SAUS70 KWBC
KMFR	SAUS46 KMFR	SAUS80 KWBC	SAUS70 KWBC
KMSO	SAUS45 KMSO	SAUS80 KWBC	SAUS70 KWBC
KPAH	SAUS43 KPAH	SAUS80 KWBC	SAUS70 KWBC
KPDT	SAUS46 KPDT	SAUS80 KWBC	SAUS70 KWBC
KPIH	SAUS45 KPIH	SAUS80 KWBC	SAUS70 KWBC
KPUB	SAUS45 KPUB	SAUS80 KWBC	SAUS70 KWBC
KSGF	SAUS43 KSGF	SAUS80 KWBC	SAUS70 KWBC
KSJT	SAUS44 KSJT	SAUS80 KWBC	SAUS70 KWBC
KTOP	SAUS43 KTOP	SAUS80 KWBC	SAUS70 KWBC

SPECI MESSAGES

ASOS SID	WMO HEADER CURRENT	WMO COLLECTIVE CURRENT	NEW COLLECTIVE
KABR	SPUS43 KABR	SPUS80 KWBC	SPUS70 KWBC
KAMA	SPUS44 KAMA	SPUS80 KWBC	SPUS70 KWBC
KBGM	SPUS41 KBGM	SPUS80 KWBC	SPUS70 KWBC
KBIS	SPUS43 KBIS	SPUS80 KWBC	SPUS70 KWBC
KBOI	SPUS45 KBOI	SPUS80 KWBC	SPUS70 KWBC
KBRO	SPUS44 KBRO	SPUS80 KWBC	SPUS70 KWBC
KCYS	SPUS45 KCYS	SPUS80 KWBC	SPUS70 KWBC
KDDC	SPUS43 KDDC	SPUS80 KWBC	SPUS70 KWBC
KEYW	SPUS42 KEYW	SPUS80 KWBC	SPUS70 KWBC
KGGW	SPUS45 KGGW	SPUS80 KWBC	SPUS70 KWBC
KGJT	SPUS45 KGJT	SPUS80 KWBC	SPUS70 KWBC
KGLD	SPUS43 KGLD	SPUS80 KWBC	SPUS70 KWBC
KGRB	SPUS43 KGRB	SPUS80 KWBC	SPUS70 KWBC
KGSP	SPUS42 KGSP	SPUS80 KWBC	SPUS70 KWBC
KGTF	SPUS45 KTFX	SPUS80 KWBC	SPUS70 KWBC
KILM	SPUS42 KILM	SPUS80 KWBC	SPUS70 KWBC
KISN	SPUS43 KBIS	SPUS80 KWBC	SPUS70 KWBC
KJKL	SPUS43 KJKL	SPUS80 KWBC	SPUS70 KWBC
KLBF	SPUS43 KLBF	SPUS80 KWBC	SPUS70 KWBC
KLCH	SPUS44 KLCH	SPUS80 KWBC	SPUS70 KWBC
KMAF	SPUS44 KMAF	SPUS80 KWBC	SPUS70 KWBC
KMFR	SPUS46 KMFR	SPUS80 KWBC	SPUS70 KWBC
KMSO	SPUS45 KMSO	SPUS80 KWBC	SPUS70 KWBC
KPAH	SPUS43 KPAH	SPUS80 KWBC	SPUS70 KWBC
KPDT	SPUS46 KPDT	SPUS80 KWBC	SPUS70 KWBC
KPIH	SPUS45 KPIH	SPUS80 KWBC	SPUS70 KWBC
KPUB	SPUS45 KPUB	SPUS80 KWBC	SPUS70 KWBC
KSGF	SPUS43 KSGF	SPUS80 KWBC	SPUS70 KWBC
KSJT	SPUS44 KSJT	SPUS80 KWBC	SPUS70 KWBC
KTOP	SPUS43 KTOP	SPUS80 KWBC	SPUS70 KWBC

ASOS SHEF PRECIP CRITERIA MESSAGE

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KABR	SRUS63 KABR	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KAMA	SRUS64 KAMA	SRUS27 KZAB	NKARR7ZAB	ALBUQUERQUE
KBGM	SRUS61 KBGM	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KBIS	SRUS63 KBIS	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KBOI	SRUS65 KBOI	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KBRO	SRUS64 KBRO	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KCYS	SRUS65 KCYS	SRUS27 KZDV	NKARR7ZDV	DENVER
KDDC	SRUS63 KDDC	SRUS27 KZKC	NKARR7ZKC	KANSAS CITY
KEYW	SRUS62 KEYW	SRUS27 KZMA	NKARR7ZMA	MIAMI
KGGW	SRUS65 KGGW	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KGJT	SRUS65 KGJT	SRUS27 KZDV	NKARR7ZDV	DENVER
KGLD	SRUS63 KGLD	SRUS27 KZDV	NKARR7ZDV	DENVER
KGRB	SRUS63 KGRB	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KGSP	SRUS62 KGSP	SRUS27 KZTL	NKARR7ZTL	ATLANTA
KGTF	SRUS65 KTFX	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KILM	SRUS62 KILM	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KISN	SRUS63 KBIS	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KJKL	SRUS63 KJKL	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KLBF	SRUS63 KLBF	SRUS27 KZDV	NKARR7ZDV	DENVER
KLCH	SRUS64 KLCH	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KMAF	SRUS64 KMAF	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KMFR	SRUS66 KMFR	SRUS27 KZSE	NKARR7ZSE	SEATTLE
KMSO	SRUS65 KMSO	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KPAH	SRUS63 KPAH	SRUS27 KZME	NKARR7ZME	MEMPHIS
KPDT	SRUS66 KPDT	SRUS27 KZSE	NKARR7ZSE	SEATTLE
KPIH	SRUS65 KPIH	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KPUB	SRUS65 KPUB	SRUS27 KZDV	NKARR7ZDV	DENVER
KSGF	SRUS63 KSGF	SRUS27 KZKC	NKARR7ZKC	KANSAS CITY
KSJT	SRUS64 KSJT	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KTOP	SRUS63 KTOP	SRUS27 KZKC	NKARR7ZKC	KANSAS CITY

ASOS SHEF HOURLY ROUTINE MESSAGE

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KABR	SRUS73 KABR	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KAMA	SRUS74 KAMA	SRUS27 KZAB	NKARR7ZAB	ALBUQUERQUE
KBGM	SRUS71 KBGM	SRUS27 KZNY	NKARR7ZNY	NEW YORK
KBIS	SRUS73 KBIS	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KBOI	SRUS75 KBOI	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KBRO	SRUS74 KBRO	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KCYS	SRUS75 KCYS	SRUS27 KZDV	NKARR7ZDV	DENVER
KDDC	SRUS73 KDDC	SRUS27 KZKC	NKARR7ZKC	KANSAS CITY
KEYW	SRUS72 KEYW	SRUS27 KZMA	NKARR7ZMA	MIAMI
KGGW	SRUS75 KGGW	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KGJT	SRUS75 KGJT	SRUS27 KZDV	NKARR7ZDV	DENVER
KGLD	SRUS73 KGLD	SRUS27 KZDV	NKARR7ZDV	DENVER
KGRB	SRUS73 KGRB	SRUS27 KZMP	NKARR7ZMP	MINNEAPOLIS
KGSP	SRUS72 KGSP	SRUS27 KZTL	NKARR7ZTL	ATLANTA
KGTF	SRUS75 KTFX	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KILM	SRUS72 KILM	SRUS27 KZDC	NKARR7ZDC	WASHINGTON DC
KISN	SRUS73 KBIS	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KJKL	SRUS73 KJKL	SRUS27 KZID	NKARR7ZID	INDIANAPOLIS
KLBF	SRUS73 KLBF	SRUS27 KZDV	NKARR7ZDV	DENVER
KLCH	SRUS74 KLCH	SRUS27 KZHU	NKARR7ZHU	HOUSTON
KMAF	SRUS74 KMAF	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KMFR	SRUS76 KMFR	SRUS27 KZSE	NKARR7ZSE	SEATTLE
KMSO	SRUS75 KMSO	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KPAH	SRUS73 KPAH	SRUS27 KZME	NKARR7ZME	MEMPHIS
KPDT	SRUS76 KPDT	SRUS27 KZSE	NKARR7ZSE	SEATTLE
KPIH	SRUS75 KPIH	SRUS27 KZLC	NKARR7ZLC	SALT LAKE CITY
KPUB	SRUS75 KPUB	SRUS27 KZDV	NKARR7ZDV	DENVER
KSGF	SRUS73 KSGF	SRUS27 KZKC	NKARR7ZKC	KANSAS CITY
KSJT	SRUS74 KSJT	SRUS27 KZFW	NKARR7ZFW	FORT WORTH
KTOP	SRUS73 KTOP	SRUS27 KZKC	NKARR7ZKC	KANSAS CITY

ASOS DAILY SUMMARY

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KABR	CXUS43 KABR	CDUS27 KZMP	NKADSMZMP	MINNEAPOLIS
KAMA	CXUS44 KAMA	CDUS27 KZAB	NKADSMZAB	ALBUQUERQUE
KBGM	CXUS41 KBGM	CDUS27 KZNY	NKADSMZNY	NEW YORK
KBIS	CXUS43 KBIS	CDUS27 KZMP	NKADSMZMP	MINNEAPOLIS
KBOI	CXUS45 KBOI	CDUS27 KZLC	NKADSMZLC	SALT LAKE CITY
KBRO	CXUS44 KBRO	CDUS27 KZHU	NKADSMZHU	HOUSTON
KCYS	CXUS45 KCYS	CDUS27 KZDV	NKADSMZDV	DENVER
KDDC	CXUS43 KDDC	CDUS27 KZKC	NKADSMZKC	KANSAS CITY
KEYW	CXUS42 KEYW	CDUS27 KZMA	NKADSMZMA	MIAMI
KGGW	CXUS45 KGGW	CDUS27 KZLC	NKADSMZLC	SALT LAKE CITY
KGJT	CXUS45 KGJT	CDUS27 KZDV	NKADSMZDV	DENVER
KGLD	CXUS43 KGLD	CDUS27 KZDV	NKADSMZDV	DENVER
KGRB	CXUS43 KGRB	CDUS27 KZMP	NKADSMZMP	MINNEAPOLIS
KGSP	CXUS42 KGSP	CDUS27 KZTL	NKADSMZTL	ATLANTA
KGTF	CXUS45 KTFX	CDUS27 KZLC	NKADSMZLC	SALT LAKE CITY
KILM	CXUS42 KILM	CDUS27 KZDC	NKADSMZDC	WASHINGTON DC
KISN	CSUS43 KBIS	CDUS27 KZLC	NKADSMZLC	SALT LAKE CITY
KJKL	CXUS43 KJKL	CDUS27 KZID	NKADSMZID	INDIANAPOLIS
KLBF	CXUS43 KLBF	CDUS27 KZDV	NKADSMZDV	DENVER
KLCH	CXUS44 KLCH	CDUS27 KZHU	NKADSMZHU	HOUSTON
KMAF	CXUS44 KMAF	CDUS27 KZFW	NKADSMZFW	FORT WORTH
KMFR	CXUS46 KMFR	CDUS27 KZSE	NKADSMZSE	SEATTLE
KMSO	CXUS45 KMSO	CDUS27 KZLC	NKADSMZLC	SALT LAKE CITY
KPAH	CXUS43 KPAH	CDUS27 KZME	NKADSMZME	MEMPHIS
KPDT	CXUS46 KPDT	CDUS27 KZSE	NKADSMZSE	SEATTLE
KPIH	CXUS45 KPIH	CDUS27 KZLC	NKADSMZLC	SALT LAKE CITY
KPUB	CXUS45 KPUB	CDUS27 KZDV	NKADSMZDV	DENVER
KSGF	CZUS43 KSGF	CDUS27 KZKC	NKADSMZKC	KANSAS CITY
KSJT	CXUS44 KSJT	CDUS27 KZFW	NKADSMZFW	FORT WORTH
KTOP	CXUS43 KTOP	CDUS27 KZKC	NKADSMZKC	KANSAS CITY

ASOS MONTHLY SUMMARY MESSAGE

ASOS SID	WMO Header OLD	WMO Header NEW	NWS PIL	FAA HUB
KABR	CSUS43 KABR	CSUS27 KZMP	NKAMSMZMP	MINNEAPOLIS
KAMA	CSUS44 KAMA	CSUS27 KZAB	NKAMSMZAB	ALBUQUERQUE
KBGM	CSUS41 KBGM	CSUS27 KZNY	NKAMSMZNY	NEW YORK
KBIS	CSUS43 KBIS	CSUS27 KZMP	NKAMSMZMP	MINNEAPOLIS
KBOI	CSUS45 KBOI	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KBRO	CSUS44 KBRO	CSUS27 KZHU	NKAMSMZHU	HOUSTON
KCYS	CSUS45 KCYS	CSUS27 KZDV	NKAMSMZDV	DENVER
KDDC	CSUS43 KDDC	CSUS27 KZKC	NKAMSMZKC	KANSAS CITY
KEYW	CSUS42 KEYW	CSUS27 KZMA	NKAMSMZMA	MIAMI
KGGW	CSUS45 KGGW	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KGJT	CSUS45 KGJT	CSUS27 KZDV	NKAMSMZDV	DENVER
KGLD	CSUS43 KGLD	CSUS27 KZDV	NKAMSMZDV	DENVER
KGRB	CSUS43 KGRB	CSUS27 KZMP	NKAMSMZMP	MINNEAPOLIS
KGSP	CSUS42 KGSP	CSUS27 KZTL	NKAMSMZTL	ATLANTA
KGTF	CSUS45 KTFX	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KILM	CSUS42 KILM	CSUS27 KZDC	NKAMSMZDC	WASHINGTON DC
KISN	CSUS43 KBIS	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KJKL	CSUS43 KJKL	CSUS27 KZID	NKAMSMZID	INDIANAPOLIS
KLBF	CSUS43 KLBF	CSUS27 KZDV	NKAMSMZDV	DENVER
KLCH	CSUS44 KLCH	CSUS27 KZHU	NKAMSMZHU	HOUSTON
KMAF	CSUS44 KMAF	CSUS27 KZFW	NKAMSMZFW	FORT WORTH
KMFR	CSUS46 KMFR	CSUS27 KZSE	NKAMSMZSE	SEATTLE
KMSO	CSUS45 KMSO	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KPAH	CSUS43 KPAH	CSUS27 KZME	NKAMSMZME	MEMPHIS
KPDT	CSUS46 KPDT	CSUS27 KZSE	NKAMSMZSE	SEATTLE
KPIH	CSUS45 KPIH	CSUS27 KZLC	NKAMSMZLC	SALT LAKE CITY
KPUB	CSUS45 KPUB	CSUS27 KZDV	NKAMSMZDV	DENVER
KSGF	CSUS43 KSGF	CSUS27 KZKC	NKAMSMZKC	KANSAS CITY
KSJT	CSUS44 KSJT	CSUS27 KZFW	NKAMSMZFW	FORT WORTH
KTOP	CSUS43 KTOP	CSUS27 KZKC	NKAMSMZKC	KANSAS CITY